**Requirements:**

1. Visit one of the following places and tell what you learned about horticulture there: public garden, arboretum, retail nursery, wholesale nursery, production greenhouse, or conservatory greenhouse. (1 hour)
2. Explain the following terms: hardiness zone, shade tolerance, pH, moisture requirement, native habitat, texture, cultivar, ultimate size, disease resistance, habit, evergreen, deciduous, annual, and perennial. Find out what hardiness zone you live in and list 10 landscape plants you like that are suitable for your climate, giving the common name and scientific name for each. (1 hour)
3. Do ONE of the following: (2 hours)
   1. Explain the difference between vegetative and sexual propagation methods, and tell some horticultural advantages of each. Grow a plant from a stem or root cutting or graft.
   2. Transplant 12 seedlings or rooted cuttings to larger containers and grow them for at least one month.
   3. Demonstrate good pruning techniques and tell why pruning is important.
   4. Plant a tree or shrub properly in an appropriate site.
4. Do EACH of the following: (.5 hours)
   1. Explain the importance of good landscape design and selection of plants that are suitable for particular sites and conditions.
   2. Tell why it is important to know how big a plant will grow.
   3. Tell why slower-growing landscape plants are sometimes a better choice than faster-growing varieties.
5. Choose ONE of the following alternatives and complete EACH of the requirements:
   1. Bedding Plants (3 hours)
      1. Grow bedding plants appropriate for your area in pots or flats from seed or cuttings in a manufactured soil mix. Explain why you chose the mix and tell what is in it.
      2. Transplant plants to a bed in the landscape and maintain the bed until the end of the growing season. Record your activities, observations, materials used, and costs.
      3. Demonstrate mulching, fertilizing, watering, weeding, and deadheading, and tell how each practice helps your plants.
      4. Tell some differences between gardening with annuals and perennials.
   2. Fruit, Berry, and Nut Crops (3 hours)
      1. Plant five fruit or nut trees, grapevines, or berry plants that are suited to your area. Take full care of fruit or nut trees, grapevines, or berry plants through one season.
      2. Prune a tree, vine, or shrub properly. Explain why pruning is necessary.
      3. Demonstrate one type of graft and tell why this method is useful.
      4. Describe how one fruit, nut, or berry crop is processed for use.
   3. Woody Ornamentals (3 hours)
      1. Plant five or more trees or shrubs in a landscape setting. Take full care of the trees or shrubs you have planted for one growing season.
      2. Prune a tree or shrub properly. Explain why pruning is necessary.
      3. List 10 trees (in addition to those listed in general requirement 5 above) and tell your counselor how each is used in the landscape. Give the common and scientific names.
      4. Describe the size, texture, color, flowers, leaves, fruit, hardiness, cultural requirements, and any special characteristics that make each type of tree or shrub attractive or interesting.
      5. Tell five ways trees help improve the quality of our environment.
   4. Home Gardening (3 hours)
      1. Design and plant a garden or landscape that is at least 10 by 10 feet.
      2. Plant 10 or more different types of plants in your garden. Tell why you selected particular varieties of vegetables and flowers. Take care of the plants in your garden for one season.
      3. Demonstrate soil preparation, staking, watering, weeding, mulching, composting, fertilizing, pest management, and pruning. Tell why each technique is used.
      4. Tell four types of things you could provide to make your home landscape or park a better place for birds and wildlife. List the common and scientific names of 10 kinds of native plants that are beneficial to birds and wildlife in your area.